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MODERN TREATMENT OF CANCER*

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PRESIDENT MCELFATRICK: Ladies and Gentlemen, we are happy to greet you here on the occasion of this public meeting under the auspices of the Medical Society of Delaware, and it is with pleasure that I present to you the Chairman of the evening, Dr. G. W. K. Forrest. (Applause)

CHAIRMAN FORREST: President McElfatrick, Ladies and Gentlemen: It is my extreme privilege tonight to introduce the speakers of the evening. Each speaker has a message that is good and a message that will accomplish good. I am sure each is anxious to talk quite a long while and they both made me promise them that I would be very brief.

Dr. Bloodgood is Professor of Clinical Surgery at Johns Hopkins University, and I am sure I can say without any question of doubt that he is a recognized clinical authority in the world on tumors: on cancers and on tumors of all sorts.

Our State Society is meeting in Wilmington and I think the general public is wonderfully pleased to have this sort of speaker with us tonight. I am happy to present Dr. Bloodgood. I am sure you will be instructed and entertained.

DR. JOSEPH C. BLOODGOOD: My colleagues and guest, Dr. Fishbein, of the American Medical Association, People of Delaware: I think we can assure you tonight that we have made very rapid progress in preventive medicine, and in the next year or two we can make much more rapid progress. The prevention of disease and the protection against disease largely rests with the people themselves. It is more the responsibility of the people to learn for themselves how to get the best out of doctors in prevention. It is very difficult for doctors of medicine in private practice to advertise themselves, and at the present moment we have not brought about the proper education of people through the Health Department, and it is no fault of the Health Department.

The point I want to bring out especially in relation to tumors and cancer is that cancer of the face and cancer of the mouth, and probably cancer of the cervix of mothers are preventable diseases, and I think the one that we should speak on first is the one in which we are getting today the least results, and it is the best demonstration of how easily you can get protection through education, and how difficult it is to get that message to you in spite of the press, in spite of the radio, in spite of your journal Hygeia, which should be on the desk of every doctor.

We now know positively that less than 10 per cent of the mothers receive the protection that they could receive. I will not go into the details, but within the last year we have written five hundred women who have been patients at the clinic in Baltimore and to whom we have written almost every year, telling them certain things that less than 10 per cent of them who are mothers have protected themselves by seeing their doctors.

The protection of a mother from cancer of the cervix rests upon her education after her child is born. She is under the care of a doctor or a clinic. She is most receptive for that information, and we teach her how to take care of her child, but we do not teach her how to take care of herself, and that simply rests upon the repair of every irritation and every injury of childbirth, and the seeing of her doctor at intervals that he selects, and the majority seem to think it is safer, especially in the younger years, twice a year. That is a very simple thing, yet 10 per cent of women are protected and 90 per cent are not protected. I want to enforce that in you. I will tell you a story that explains it. If you do not understand it, you do not have confidence in the medical profession. When my children were about two and three years of age, in perfect health, I said to Mrs. Bloodgood, "I am going to take the children over to the Children's Clinic and have them looked over carefully. We will not wait to see whether they have anything." She said, "No, you won't do it. They will find something the matter with

* Address delivered at the Public Meeting of the Medical Society of Delaware, Wilmington, October 13, 1931.

them." Now that attitude must be changed. You must have such confidence in your doctors or in the medical profession that you will select your doctor, when you are well; take time about it, ask your friends about it, get the best doctor you can. A good doctor costs no more than a poor doctor; in fact, he is the most reasonable.

I remember when I was a boy, I was sent from Milwaukee to Madison to go to the University and I had a letter of introduction to a clergyman, but not to a doctor. I went to Pennsylvania. I had a letter of introduction to a clergyman, and not to a doctor, and when I came to Baltimore to Johns Hopkins, I had a letter of introduction to a clergyman and not to a doctor.

When you move from one place to another, you should take a letter not only to a clergyman, but to a doctor. The essential thing is to select your physician when you are well. Visit him when you are well and get all there is out of the protection of his advice, not only conversation, but examinations. I am inclined to think that the medical profession as yet does not know how to talk to you. We are experimenting now with all the women who have been patients of the clinic in Baltimore and we have increased the pelvic examinations of mothers in six months from 10 to 40 per cent, so it can be done.

The members of the press have learned what they call the effect of a story and let me tell you a story which illustrates how badly we are both doing it, the doctors and the people in general. Ten years ago a woman came into our clinic from Oklahoma with a lump in her breast, expecting to have her breast removed for cancer. The lump was taken out, looked at under the microscope and found not to be cancer, so the breast was not removed. We wrote her every year to come to Baltimore or be examined in Oklahoma to see whether there was any return of the lump or any new lump, or any trouble in the other breast. We also wrote her a little article on her health which said, "if you have any trouble with the menstrual period that you didn't have before or any reappearance of the discharge after the change of life, see your doctor at once," but we didn't tell her, although she was the mother of seven children, when she went to see her doctor to have the breast examined, and to have a pelvic examination. After ten years of seeing her doctor once a year, she had a sudden hemorrhage, was examined, and has cancer. That could have been detected before it was cancer and probably prevented.

It is only in the last few years, after perhaps fifteen years or more of radium and forty years of surgery, that we have realized that the greatest protection to a woman who has borne children is periodic examinations by a properly selected doctor.

We now know that cancer which should be a word you should fear no more than "tuberculosis," or "appendicitis," is a local disease. It begins in a single spot and it is a group of cells in a single spot. We can show you a moving picture now of the movement of cells. You see these different cells on the field and the little white blood cell is running around like a chicken with its head off among the other cells, furthermore, people now are interested in looking at xrays.

Fifteen years ago you would all have left the room or you wouldn't have come here. Cancer begins in something that is not cancer, and that is the cheerful note, and when that is external, like the mouth and the skin and the cervix of a woman, which can be made external by a light, you will always see something there first that is not cancer, and in that period cancer is preventable.

For example, we know a beautiful woman never gets cancer of the skin because she pays attention to the first spot. The modern woman can smoke with little or no danger of cancer because she pays attention to the first spot, and she keeps her teeth clean. So much is the modern woman of a different character than the modern man, that I am inclined to think that the future of the health depends upon making the mother the health department of the family. We will have the Federal Department of Health, we will have the State Department of Health, and the County Department of Health, and the City Department of Health, and we will have the health department of the family, and with the four or five health departments and the mother the health department of the family, and the medical profession organized, and a teaching system that begins in the primary schools, you will be surprised at the tremendous reduction in illness.

You *can* teach children. My daughter said to me at eight, "Father, are you going to take the mole off my back?" My son was ten when I met him on his way to my office, being taken with his leg over his other knee: "Father, we have to go back to the office. I stepped on a rusty nail. I want some antitoxin."

I delivered an address in Mobile and saw a little girl of ten there on the front row and I said to her, "Stand up! What would you do if you stepped on a rusty nail?" "I would wash it with soap and water and alcohol, and put a bandage on it and go to the doctor and tell him to give me antitoxin for tetanus," and one of my friends said the only remark he heard in the audience was that it was a put-up job.

In 1920 in the records of one of the greatest clinics in the world there were 4 per cent cures of cancer of bone. In 1931 in the same clinic there were 25 per cent cures of cancer of bone. What had increased the cures of cancer of bone from 4 to 25 per cent? Operation? No. Xray and radium? No. Microscope? No. The fact that more people know that when they have a pain in the region of the bone or a swelling in the region of the bone they go and get an xray. If their doctor calls it rheumatism, or growing pains, or a bruise, or sciatica, or anything else, and he does not order an xray, they leave the doctor.

I remember a girl friend of mine at the seashore who telegraphed me, "John stepped on a rusty nail. What shall I do?" I telegraphed. "Have John given antitoxin." She telegraphed back, "The doctor doesn't think John needs antitoxin. There is no tetanus here." I telegraphed, "Get another doctor and keep on getting another doctor until you get antitoxin."

That is the way we are going to educate the public to know what to do under certain circumstances.

You have been seeing xrays of the animals' intestines, and one of the most difficult things that we are finding with the public today is that they don't want an xray of their stomach until the last resort, and the reason that the mortality from cancer of the stomach is so great is not that the removal of a piece of the stomach is dangerous. It is no more dangerous for a qualified surgeon to remove a piece of your stomach than to remove a piece of your intestine or even appendix.

I wish I had my patient here whose stomach I removed twenty years ago, tonight, and let him get up and tell you how I got it out. I told him he had appendicitis. They were educated to that twenty years ago, but not to the other, and if I had told him I had to remove his stomach, he would be in heaven now or somewhere else.

The fact remains that we are educated, when we have indigestion, to take bicarbonate of soda, but we should also know that we should not stop with bicarbonate of soda. The xray will picture just what is going on, and sometimes a person's peristalsis is so great that we get a picture that looks like cancer. We give them atropin which stops the peristaltic action.

We have been discussing for years the question, can you overlook cancer of the stomach in the xrays? It is very rare. There is the stomach that you are looking at and you have a plate in front of you and to your right, and there on the left is the stomach, and then there is a little spot called the pylorus, and then the intestine. If the trouble is to your right on the patient, but to the left of the other person, we know it is the duodenum and it is not cancer; if it is to the right, it may be cancer.

So then the cure of cancer depends upon, if possible, having an examination in the period when cancer can be cured by xray or radium, and you have got to learn that when your family physician wants other doctors to see you, it is an indication that he is a good doctor, because today no one member of the medical profession can take care of the diagnosis and treatment of cancer.

One more thing to remember, and you can forget all the rest. The symptoms of external things that you can see and feel, or of internal things that have their language of telling you, with pain or discomfort or something else, are warnings. You always know where it is. You can put your hand almost over the spot. The symptoms of things in the beginning that are not cancer and never will be cancer are identical with the symptoms of things that are not cancer, but may be cancer, and are identical with symptoms of the early stages of cancer; so that the doctor must decide at his examination whether you have something that will never be cancer that can be left alone, something that may be cancer that can be eliminated a hundred per cent, or the earlier stages of cancer. But there is a fourth and very important stage, the stage

in which there are no symptoms whatever and yet you have some trouble, as was shown in the draft, and that is why it is the consensus of opinion that you should consult your family physician from time to time and have an examination that will bring out, reveal in some way, the spot that may give you trouble later on.

For example, look in the mouth and there is a white patch. You don't know it is there. Your teeth need cleaning. We have demonstrated that practically no individual develops cancer of the mouth under the care of the dentist.

If the women of this country answer our recommendation about semi-annual pelvic examination, those who have children, I feel that we can say that no woman under the care of a doctor will ever have cancer of the cervix. Every skin blemish from birth to death will be picked up at the annual examination before it is cancer. We can't promise that entirely with the breast, because you may feel a lump today and have it operated on tomorrow and it is cancer and you haven't but a 70 per cent or 80 per cent chance of being cured of it, but that is better than a 10 per cent chance, so that even when cancer has developed, you increase your chances from less than 10 to more than 70 by immediate examination the moment you are warned or when it is picked up in semi-annual examination.

Twice this year in periodic examinations we have passed the proctoscope, looked into the rectum, found a little tumor no bigger than the end of your finger, pulled it out within five minutes, before they knew it, and under the microscope found it was cancer. That is a hundred per cent.

The majority of us don't want to go to see a doctor. I am inclined to think it is a psychological problem how to get you to follow our recommendations, and I think it will depend largely upon the primary schools.

I have three minutes left, but I know Dr. Fishbein has something to tell you and I am going to give him those three minutes, and then. two years from now, we are going to find out who saved the greatest number of lives. (Applause)

CHAIRMAN FORREST: Dr. Bloodgood, before you leave, on behalf of the Medical Society of Delaware and the general public, we want to thank you most heartily for your wonderful talk. I am convinced, and I am sure the rest of you are convinced, that your research work, your clinical experience in treatment of the individuals and in your clinic has done lots of good, but your talk tonight assures us that your campaign of education is a thing that is going to accomplish what you wish it to accomplish.

DR. BLOODGOOD: I should like to tell you and the people of Wilmington that you have the opportunity to lead the way in the education of the people of your state. Later on we will tell you how to do it, but you have the opportunity, being a small state with not a large number of people, so that it is easy to organize the people and the profession and teach the whole world how to get the greatest protection out of medicine today.

We don't claim that medicine is better than any other profession. The only point is that the medical profession is the only one which can do this.

Doctors' Bills of Royalty Are High

It is said that the recent illness of King George V of Great Britain cost the royal exchequer about $200,000.

In Buckingham Palace a private pharmacy was established where drugs for the use of His Majesty were compounded. This caused an expense of not less than $15,000, as the pharmacist had two assistants.

Lord Dawson of Penn gave all his time to the King for several months and his bill was $50,000. Stanley Hewitt received $2,500 a month.

Sir Hugh Rigby performed three operations, and, strange as it may seem, received a fee of only $25 each.

Lionel Whitby, a bacteriologist, treated the King's blood and his bill was $10,000.

The patient received several ray treatments at a total cost of $10,000.

A staff of six nurses was employed—reduced to four after the crisis had passed—and the nurses were paid usual fees, with a bonus of $500 each when they were dismissed.

A ventilating system for the royal bed chamber was built by engineers, who received $20,000.

Later as the King made progress toward recovery he was removed to Craigwell House, and this removal was at an expense of $7,500, as the King was conveyed to his new abode in a specially constructed ambulance.

Kalends, August, 1931

BACKACHE*

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At a recent meeting of the American Orthopaedic Association three hours were consumed in a symposium on the same subject as this paper, and at the end only one-half of the material had been considered. It is therefore incumbent to limit this paper rather markedly. Consequently though the neurological, gynecological, genito-urinary, and arthritic manifestations of backache are admitted, they will not be discussed in this paper, and this discourse will be further limited to a study of the mechanical causes of backache in the regions known as the lumbo-sacral and sacro-iliac areas.

For some years, due to over-emphasis on the part of zealous workers, the sacro-iliac joints and regions thereof have received undue consideration, especially when it is found that the discomfort there occurs about in the ratio of one to three as compared with the lumbo-sacral area.

On analysis, reasons for this are quite obvious. First, anatomically, the two joints are of different types. The lumbo-sacral joint, i. e., the joint between the fifth lumbar vertebra and the first sacral vertebra, is constructed as follows: As between every vertebra save the first and second cervicals the articular facets, one on each side, lie posteriorly to the weight-bearing surfaces, or the bodies. The articulations between the fifth lumbar and first sacral lie fairly far out laterally and those of the fifth lumbar are internal to those of the first sacral in the sagittal plane. This allows for a considerable amount of antero-posterior motion and likewise, though less in extent, a fair amount of lateral motion. The function of the inter-vertebral disc in motion is one of absorbing shock and allowing elastic movement between the weight-bearing surfaces so that motion is gradually and evenly performed rather than in a sudden and jerking manner. Motion thus obtained is different from that elsewhere in the body in that the articulations are relatively far away from the actual weight-bearing surfaces. The articulations and bodies are surrounded and supported by ligaments and muscles, which combination affords perfectly adequate support provided, of course, the normal position is assumed. This position can arbitrarily be taken as follows: On the lateral view of the spine as a whole there is formed a lordotic or forward bending in the cervical region, a backward or kyphotic bending in the dorsal region and a lordosis in the lumbar region, so that the articulation between the fifth lumbar and sacrum lies at an angle of forty-five degrees with the vertical. If a plumb line be dropped from the axis or the center of gravity of the head, which can be taken as the mastoid process the line will pass through the center of the body of the first sacral vertebra at its junction with the fifth lumbar. Mechanically, therefore, though the spine is composed of small segments of bone built on each other as blocks are piled up and held in place by ligaments and muscles, as guy wires hold up a flag-pole, the actual weight thrust of the body is transmitted from bone to bone and the actual tension on the muscles and ligaments is slight enough for them to withstand without undue stress and strain. If now, for some reason, the normal position is changed so that the body weight is *not* transmitted from bone to bone, then there is an immediate terrific strain on the ligaments and muscles; they tire and pain ensues. Just as, again, when the flag-pole is slanted out of the vertical, if a slight force is applied in the direction of the slant the pegs and wires give way.

Now, with the sacro-iliac joints, on the other hand, the conditions are as follows: The iliac surface of the sacrum is not smooth and presents, roughly, the appearance of a relief map with hills and valleys. The sacral surface of the ilium is likewise corrugated and the mere image of the sacrum. There is cartilage on both surfaces. The ligaments supporting this joint are exceedingly strong and heavy, and, due to these and the irregular joint surfaces, there can be only little motion present. However, motion is possible from zero degrees to eight degrees anteroposteriorly, and less in extent up and down. Sashin, in an interesting study of two hundred and fifty autopsies on sacro-iliac joints, found that they were definitely diarthrodial joints, and that motion was definitely present. The interesting point brought out was the increased mobility during pregnancy and the marked decrease or absence of motion in advanced ages i. e., in the fourth decade in men and the fifth in women. Another point was the relative difference in the strength of the anterior and pos-

* Read by title before the Medical Society of Delaware, Wilmington, October 14, 1931.

terior ligaments. The posterior sacro-iliac ligaments are remarkably strong, but only very little separation of the pubic bones (e. g. under 6 cm.) would produce a tearing of the anterior ligaments. There is no question that there is a subluxation of the sacro-iliac joints, but actual dislocation can only be caused by severe trauma, and even then it is frequently seen by xray that there has been a fracture of the sacrum along the margin of the joint rather than an actual dislocation of the joint itself.

The situation of the sciatic nerve warrants exact consideration inasmuch as it can be involved in lesions of both joints. Being composed of cords from the fourth lumbar to the third sacral segments any twisting or tortuous course caused by mal-position of the lumbar or sacral bones, or by swelling, or oedema due to strain of the ligaments, etc., irritating the cords as they leave the bony frame-work, will, of course, cause pain in the areas supplied by these cords. Likewise, any force which would cause the nerve to be pressed against the bony frame-work would do the same thing, either as it passes around the body of the fifth lumbar or sacrum, or, as it passes directly over the lower boundary of the sacro-iliac joint. It has long been held that the sciatic nerve can be irritated or bound down by oedema or scar tissue at the lower border of the sacro-iliac articulation. It can therefore be seen that the problem of differentiation becomes an exceedingly difficult and complex one.

Physiologically any joint which has as much strain attached to it as the lumbo-sacral must of necessity be remarkably strong, and in those people with normal backs the conditions are perfectly adequate for taking care of any normal occurrence. It should be added that a patient with a normal back rarely, if ever, complains of pain. Unfortunately only about thirty-five per cent of people have normal lumbo-sacral joints but fortunately, patients with abnormal backs do not all have back pain. The question simmers down to the potentially weak back—those who have it are in danger of developing trouble because of it but will not necessarily do so. It must be kept constantly in mind that this lumbo-sacral area is the point between the most mobile portion of the spine and the most fixed point, and that here, more than anywhere else, some of us pay the price of standing erect. It is for this reason that so many abnormalities arise—a few of them will be mentioned later. With the sacro-iliac joints, on the other hand, practically limited to eight degrees of motion only a few difficulties can arise. The ligaments about any joint may become stretched and any joint may become subluxated. It is usually one of these two things that can occur to a sacro-iliac joint.

Let us take up the most frequent abnormalities occurring about the lumbo-sacral joints. Most frequent in occurrence are abnormal articulations. Either one or both of the articulations may be rotated through ninety degrees so that they face antero-posterior (as in the dorsal region) rather than internal-external. Or, they may be rotated only half-way and are therefore called oblique. It has been found that when one articulation is normal and its mate is rotated ninety degrees the consequent working at cross purposes of these two joints produces one very definite type of painful back.

Another less frequent cause of backache is the growth of wings on the transverse processes of the fifth lumbar, an attempt on nature's part, to sacralize the fifth lumbar. These may be uni- or bi-lateral which, because of their abnormal position, impinge on the ilia or on the processes of the first sacral vertebra.

Along with abnormal conditions there must be considered in more detail that of the antero-posterior position, that is, the amount of lordosis present. Considering again the pile of blocks, if the lordosis is increased the weight thrust of the head and trunk will fall in front of the body of the first sacral vertebra, and consequently the support and entire weight will depend on the muscles and ligaments. This will be too great for them to withstand and pain will result. There is occasionally present a non-fusion of the lamina to the body of the fifth lumbar vertebra, and then spondylolisthesis will probably occur. In this condition, there is no articular support for the body of the fifth lumbar and it therefore slips forward on the articular surface of the first sacral so that its front border may extend one-half and occasionally completely beyond this articular surface. In this condition, again, the entire weight is borne on soft structures. The opposite condition, sometimes called posterior displacement of the fifth lumbar, also

occurs and both conditions are practically always associated with pain. There is still another type of back, which, though the lumbo-sacral articulations and lumbo-sacral angle are normal, still is painful. In this type there has been a lack of fusion between the first and second sacral segments, so that due to the normal tilting of the sacrum the first and second sacral articulations fall in back of the center of gravity and pain results, as in the case of the lordotic back. There are sometimes an abnormal number of lumbar vertebrae, occasionally four, more often six. The latter cause undue strain, due to an abnormally long unsupported portion of the lumbar spine. Another very common low back complaint can be laid to poor posture. Frequently with normal articulations and quite commonly with abnormal ones, there is an increased lordosis, with the other usual signs of poor posture. This again throws the weight thrust in front of the first sacral vertebra and again causes strain. In most of these cases also, it will be found that the sacrum lies more horizontal than normal, and in this type, if the sacrum can be placed in the proper position, the signs and symptoms will clear up.

Another thing should be mentioned also; namely, that from the form of the articulations present either in the sacro-iliac or lumbo-sacral joints very little rotation is possible and it will be seen in a moment why this discrepancy causes frequent symptoms of backache.

It will be well to pause and consider for a moment the possibility of pain caused by fractures in the posterior portions of the fifth lumbar vertebra. Fractures of the lamina themselves usually cause no after-effects, due to their position away from articulations. However, fractures involving the articular facets are quite painful and disabling, in that the excessive callous laid down immediately interferes with the joint motion, and pain results. I recall very vividly one girl of eighteen who had led a rather active existence and had begun to have severe pain in her lumbo-sacral region even though there was no definite history of trauma. At operation it was found that her fifth lumbar articular processes, both of which, by the way, were rotated ninety degrees, had been broken off about one-eighth of an inch from their tips and the fragments were lying loose in the joints against the sacral processes. It is quite important, therefore, to consider the possibilities of fracture of the articulations in any back complaint. Fractures through the lamina between the superior and inferior articular processes are very liable to produce a potential or actual spondylolisthesis, and should always be looked for.

All back strains and low back pain fall under two heads, acute and chronic. Fortunately a fair number of the former clear up, but there is a goodly number which progress and become chronic, so that the unlucky individual becomes quite incapacitated from performing his or her daily routine.

Acute backache is frequently the result of trauma and usually an indirect trauma, accasioned first by a fall or injury to the back. In this type the question of a fracture always arises and must definitely be ruled out. By indirect trauma is meant the strain beyond endurance of the part occasioned by lifting a heavy object, or by twisting or rotation of the lumbar region beyond a limitation of motion of the joints involved. It can be seen that from the type of articulation present only slight rotation is possible. Consequently when overdone, either the ligaments about the lumbo-sacral junction will give way, or, if they are stronger than the sacro-iliac ligaments, then the latter will stretch and pain will result. It must be remembered also that in the majority of cases bone will tear before ligaments will give way. A very common example of this is seen in the Colles' fracture, also seen, as already stated, in a fracture of the sacrum occurring instead of a dislocation of the sacro-iliac joint. Such a condition can naturally only arise when there is a sudden excessive force applied to the area involved. Any continued strain will naturally stretch the ligaments rather than break the bone—witness any of the double-jointed comedians seen in circuses or on the vaudeville stage.

Chronic backache is quite a different problem and, except for the acute ones which have become chronic, offers an extremely large group of cases, accurate diagnosis of which is one of the most difficult problems. As someone has said, backache, to the orthopaedist, offers a romantic field closely akin to the general surgeon's upper abdomen. Patients suffering from this affliction usually complain of backache for years, and after having run the gamut, first of medical.

and, after discouragements, later of quack treatment and still discouraged, come in in a defensive state of mind, so that it requires no little tact and patience to gain their confidence. Much to the discredit of the medical profession there is frequently a history of taking this or that treatment without benefit and finally, having gone to a quack, who out of fear or monetary gain, has had an xray taken and disclosed a condition which should have been determined by the first medical man to whom the sufferer applied. It should be stated right here that no condition involving pain in the back should first be treated without adequate roentgen photographs. These must necessarily include antero-posterior stereoscopic views and, absolutely, a lateral view. The necessity for this is easily apparent when the physician must rule out, definitely, tuberculosis and cancer, as well as other numerous bone diseases before treatment for simple chronic low-back pain can be instituted. Likewise fractures must be eliminated and the actual location of symptoms must be determined. This can be done in no way unless the requisite xray views have been made.

The patient usually states that the pain is present more or less constantly with occasional sharp exacerbations from some sudden movement. The pain is worse usually toward morning, but any change of position is extremely trying. "When I stand up I can't sit down; when I am sitting I can't lie down," is a common story. Another frequent complaint is the inability to twist from side to side and a marked inability to lift any type of object that throws the body off balance. All of this disability is caused only by pain. There is a very common complaint of tenderness either over the fifth lumbar spinous process or laterally in the region of the posterior or inferior iliac spines; likewise some gluteal tenderness and a very common complaint of pain in the back of the thigh, sometimes extending along the popliteal nerve and along the outside of the foot to the region of the little toe. This, of course, is the sciatic distribution. Less frequently, there is a complaint of pain along the lateral aspect of the thigh. Such are the usual symptoms that are encountered.

So far as signs are concerned, a good deal can be gained by noticing the patient's gait. Is there a limp? Frequently there will be, and on standing there will be noted a list to the affected side. If there is no limp, then the first point in differential diagnosis is established. Frequently there is no limp or list in the lumbo-sacral involvement. Occasionally, of course, there is. The next point in the examination is to determine the amount of mobility present in the spine. The patient is still standing. Usually, first, there will be spasm of the lumbar muscle group, either uni- or bi-lateral, occasioned by an attempt to hold the spine rigid in an effort to eliminate pain. If both groups are rigid, there is again a lead toward a lumbo-sacral involvement. If only one side is spastic then other signs must be elicited, for either of the two regions may be involved. When the patient bends forward, if the back is held rigidly, so that there is no motion in the lumbar region, the condition then points to lumbo-sacral; but if, after bending a certain distance there is a tendency to rotate the lumbar region and the pelvis, there is some considerable indication that the patient is trying to protect his painful sacro-iliac joint. Lateral bending likewise is important. Frequently the patient can bend one way, while an attempt to bend the other elicits marked pain and spasm on the opposite side. In other words, compression of his joints, and therefore relaxation of his ligaments, is not painful but extension and stretching of his supporting structures causes pain. So much for the standing examination.

The patients should now be made to sit down and the bending positions again analyzed. If there is lumbo-sacral involvement he will still hold his back rigidly, and will still be unable to bend or unfold his fixed lumbar lordosis. If the sacro-iliac is bothering him he will be able to bend much further than when standing, because the ligaments are relaxed, and with the hips and knees flexed, there is no pull on the injured elements.

The patient should now be placed on his back on a firm table. A lower abnormal examination is essential. Sometimes, as Carnett says, pain can be elicited by lateral pressure on the bodies of the lumbar vertebra, an indication of lumbar involvement. Also, and this is important from a differential diagnostic standpoint, an attempt to elicit tenderness in the anterior border of the sacro-iliac articulation should be made. This can be felt a little below and medial to McBurney's point and, of course, can only be elicit-

ed by deep pressure down to actual bony contact. There have, of course, been cases of sacro-iliac disease operated on for appendicitis because they have had this sign.

While the patient is on his back various tests can be made to determine pain in the low-back region. The first is Goldthwaite's sign, and is practically the same as the neurological Koernig's test. The hip is flexed to ninety degrees with the knee flexed. The leg is then extended at the knee, and if there is sacro-iliac involvement there should be marked pain in the joint on the same side. Otherwise of course, the patient will complain of a pulling in the hamstrings.

Next, Laguere's sign: the heel of the foot is placed on the opposite knee and the leg is then forced down to the table. This produces an exaggerated outward rotation and abduction of the hip which stretches the "Y" ligament and locks the hip so that the force acts as a pry on the sacro-iliac joint of the same side.

Then there is Gaenslen's sign. The hip and knee are flexed on one side and held as far bent as possible, thus locking any motion at the hip and throwing the lumbar spine flat on the table. The patient is brought to the edge of the table and the extended leg is forced into hyper-extension with the manipulator's hand. The only portion of the back which can move is the sacro-iliac joint on the extended side and, if involved, the patient immediately experiences severe pain in that area.

It is thus seen that with a multitude of different tests a conclusion can be arrived at. Unfortunately there are a few cases that must be followed for months before an accurate diagnosis can be made. Even then there are a few cases where both joints are involved. So far as differential diagnosis is concerned there is one condition which should be mentioned. We shall not go into tuberculosis or cancer or arthritis but we must mention sciatica. By this I mean localized tenderness along the sciatic nerve in the back of the thigh. One of the most common sites lies at the exit of the nerve from the great sciatic notch. But such an area may occur anywhere along the course of the nerve, and is due to swelling and oedema there or, later, to scar tissue as a consequence of the former.

As to treatment, as usual it can be divided into conservative and operative. Fortunately for the patient, conservative treatment takes care of the majority, but there is a considerable number which finally come to some operative procedure. Probably one reason for this large number of operations is the exceedingly large number of people suffering from low-back conditions.

It is advisable generally to try the most conservative and simple things first and the differential diagnosis becomes at once important.

We shall consider chronic cases only. For lumbo-sacral conditions an excellent procedure is as follows: boards should be placed lengthwise under the mattress extending from the head of the spring to at least below the knees. Most of the population sleep on the so-called sagless spring which is stretched from the two end pieces, with no support elsewhere. The weight of the body must, perforce, carry the center portion down so that the head and feet are elevated and the patient thus sleeps in a sagged position, and places undue strain on an already weakened area. Occasionally a patient will come in complaining of low-back pain, and will state that he never had trouble until he slept on a certain bed. Put him back on the bed he was used to, which was probably of the box-spring type, and the pain is relieved. Postural exercises are essential in an effort to get the patient to rotate his pelvis forward, thus straightening the sacrum and improving his lumbo-sacral angle. Sometimes this alone is ample, but frequently a whole series of postural exercises (after Goldthwaite, and well demonstrated and clearly outlined by Dickson in his book on "Posture") must be instituted. These simple procedures are amplified occasionally when there are evidences of osteophytes from superimposed arthritis by catharsis. Sometimes it is advisable to apply heat and massage. If the condition warrants it, strapping may be indicated. Thus occurs the first attempt toward splintering the affected part. Inasmuch as strapping is only a temporary procedure, if benefit arises then a brace is indicated, made out of flexible steel and built especially for the individual. No haphazard affair will aid. Again, if such a course of treatment is not beneficial, then there is finally operation which is again a splinting procedure. This involves fusing the fifth lumbar to the sacrum, after the method of Hibbs. In certain conditions any amount of external splinting will

not help. Standing before all others is spondylolisthesis; here, operation is the only real choice.

In sacro-iliac conditions obviously, posture itself is secondary save where there is a short leg or some other anomaly. Sometimes rest in bed, with heat and massage, is sufficient. Frequently a firm strapping with adhesive plaster suffices. A word about its application. Strips of plaster should be at least three inches wide. They should be cut long enough to encircle the back and reach beyond each anterior superior iliac spine in front. Starting at the top on one side the patient should rotate in one direction as the adhesive is pulled strongly in the opposite direction. The next piece allowing for at least one inch of over-lap should be started on the side where the first left off and thus the pull is alternately exerted, first on one side and then on the other, until there is a solid wall of plaster from above the iliac crest down to the great trochanters. It is well to reinforce this strapping with two more straps applied diagonally and still with considerable force, from the bottom of one side to the top of the other side. If such a strapping is efficient and relieves the patient, then a sacro-iliac belt is indicated and the patient required to wear it more or less continuously.

If such procedures are inadequate, then stretching and manipulation of the joint is indicated and, if this is likewise without avail, fusion of the joint should be advised.

Such in very briefest outline is the treatment applied to chronic low-back conditions. Again, the accurate diagnosis and history must be stressed, as treatment differs so radically in the two conditions.

To sum up, this discussion has included an anatomical and physiological discourse, and comparison of the lumbo-sacral and sacro-iliac joints. Reference has been directed most particularly to the conditions causing low-back pain, chronic, and of the mechanical variety. Various other conditions have been mentioned only to bring out more definitely simple low-back pain. Treatment mentioned includes only that of chronic low-back pain, and again demonstrates the absolute necessity for accurate diagnosis inasmuch as there is such a radical difference in the treatment of the two joints concerned.

American College of Physicians

The Sixteenth Annual Clinical Session of the American College of Physicians will be held in San Francisco, California, April 4-8, 1932. The headquarters in San Francisco will be the Palace Hotel, where the general scientific sessions, registration, and exhibits will be held. Clinics will be conducted in various hospitals and institutions in San Francisco and near-by communities.

Dr. S. Marx White, Minneapolis, President of the College, has in charge the selection of speakers and subjects on the general program, while Dr. William J. Kerr, San Francisco, Professor of Medicine at the University of California Medical School, is the General Chairman of the Session, and is responsible for all local arrangements, in addition to the arrangement of programs and demonstrations. Following the San Francisco Session a post-convention tour will be conducted through Yosemite Valley, Southern California, (with two days in Los Angeles) and the Grand Canyon of Arizona.

The attention of the secretaries of various societies is called to the above dates, in the hope that their societies will select non-conflicting dates for their 1932 meetings.

Filament-Nonfilament Count: Its Diagnostic and Prognostic Value

According to W. V. MULLIN and G. C. LARGE, Cleveland (*Journal A. M. A.*, Oct. 17, 1931), the filament-nonfilament count is a valuable aid in securing the clinical picture of disease, following more closely the course of the infection than the total leukocyte count and foretelling complications in convalescence. In nonfilament counts of 50 per cent and over, a very guarded prognosis must be given. The majority of such cases reach a fatal termination. The authors believe that filament-nonfilament counts may prove valuable aids in the differential diagnosis of infections from noninfectious allergies and arthritides. Filament-nonfilament counts may also prove a valuable basis by which to gage the dosage of malarial injection in the treatment of syphilis.

EDITORIAL

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Local news of possible interest to the medical profession, notes on removals, changes in address, births, deaths and weddings will be gratefully received.

All advertisements are received subject to the approval of the Council on Pharmacy and Chemistry of the American Medical Association.

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A LEGAL INJUSTICE

After all, the most important thing in surgery is judgment, and the courts have, hitherto, held that a plaintiff cannot recover from a physician for an error of judgment, while he can recover for an error of fact. But since all good things must come to an end, it now appears that, at least in the State of Washington, even judgment is no longer damage-proof; in fact, the court there goes so far as to rob the physician of his right to exercise his judgment, and asserts by legal fiat that no fracture shall be operated on without first trying conservative or closed treatment. This is ridiculous medicine, but it is the law in the State of Washington, and it seems likely to remain the law for some time, since it is the decision of their State Supreme Court, and can be upset only by the Supreme Court of the United States.

There is something radically wrong with this decision. Either the evidence for the doctor was not properly introduced, or the law under which the court ruled is unconstitutional; we contend that no court and no legislature has the right to practice medicine, and yet this decision emphatically places the court in the role of medical practitioner. When the Congress of the United States tells us we can prescribe only one pint of whiskey in ten days, it is practicing medicine; and when the Washington State Supreme Court tells us we cannot operate immediately on certain fractures, it is practicing medicine, and a horrible brand of medicine at that, somewhat in keeping with the notorious decision of a Texas Court some years ago that salpingitis is a disease common to both sexes!

The following editorial from the October issue of *Northwest Medicine* brings us the news of this astounding decision, which we devoutly hope will be appealed to the United States Supreme Court.

—

SUPREME COURT'S OPINION ON OPEN TREATMENT OF FRACTURES

The recent decision given by the Washington Supreme Court, in the case of Prather vs. Downs of Spokane, is of such vital importance to all surgeons in the treatment of fractures that it should be brought to the attention of the profession of the state. Regardless of the justice or injustice of this decision from a surgical standpoint, it remains established as the law relative to this form of practice. The court emphatically considers the use of a Lane plate as a method of last resort. Since the Supreme Court has once before given a decision that open reduction of a fracture, without first having used other methods, is prima facie evidence of malpractice, the legality of this opinion has become clearly affirmed. Following is an extract from the Supreme Court decision bearing on this point:

> "The verdict in a malpractice action should be sustained, where it appeared that an operation was performed in order to set a fractured femur without first attempting to secure a union by the use of some generally used extension process.
>
> "The evidence is ample to warrant the conclusion that the opening of the flesh, the injury thereto being wholly internal, and the insertion of a 'Lane plate' with a view of holding the ends of a broken bone in apposition and alignment, is a method of last resort, so recognized by the profession generally, because of the great danger of infection following such method of treatment.
>
> "In the present case there is ample evidence to warrant the jury in finding the appellant guilty of negligence in resorting to an open operation for the purpose of effecting a union of a fractured bone without first exhausting such well-known and universally proven methods as manipulation, traction and extension processes."

A "BLUE CHIP" INVESTMENT

We all have been growling about our dividends falling off. No coupons to cut. The cupboard getting bare. The future not very rosy. The trouble is that some of us have overlooked a gilt-edged security we have. It's one that in all history has never paid such high dividends as it does today. Health Preservation it's called, and it's issued by the approved hospitals in our community. The American College of Surgeons, the organization which puts its seal of approval upon hospitals meeting certain standards for good care of patients, might be described as the holding company.

Announcement of the list of 2,158 hospitals in the United States and Canada, which the American College of Surgeons at its recent clinical congress in New York designated as approved; should serve to remind us that these institutions are one of our greatest assets. Although it is true that the actual investment in hospitals is over $4,000,000,000, their value lies not simply in land, buildings and equipment. The fact is that every approved hospital pays actual cash dividends to its community. Let's stop to estimate them for a moment.

It is a recognized fact that since hospital standardization was put into effect in 1918 with the first annual survey of such institutions by the American College of Surgeons, the average death rate in approved hospitals has dropped more than 50 per cent, and mortalities from surgical operations are only about one-fourth what they were at that tme. The average time that patients must stay in hospitals has also been reduced by half. Where 15 years ago a patient being treated for appendicitis had to spend 25 to 30 days in the hospital, now he spends, on the average, only 10 days for exactly the same type of case. All this has meant thousands of lives saved that would otherwise have been lost, the earning power of many families increased, countless hours of productive time restored to industry.

Consider simply the return on lives saved that would otherwise be lost through inefficient surgery, careless nursing, and poor management. An approved hospital of 200 beds, for instance, will annually care for about 5,000 patients, whose total maintenance cost will average $300,000. If this hospital saves from this number only 10 per cent who would have died but for the better care given, it would mean a saving of 500 lives. Actuarians estimate the value of a human life at $5,000. At this rate the net return to the community from one approved hospital alone on but one item would be $2,500,000. And this capitalizes only a single phase of hospital service. We have not yet evaluated the saving to industry, the reduction in number of public dependents, the increase in family incomes, not to mention that which is above price —the suffering alleviated. Where is the industry that can match these dividends?

Despite the economic crisis approved hospitals, unlike some business organizations, are not contemplating retrenchments in their services to the public for the coming year. They expect instead to have to carry a larger burden than before because of the many more persons needing hospital aid in times of financial distress. The minimum standard of the American College of Surgeons, around which approved hospitals are developed, will help them to carry this added burden because the principles contained in the standard are based on sound economics and stress good organization and management rather than a lavish display of glittering equipment. Every good hospital must have funds, however, and those who receive dividends from it should see the good sense of putting back some of the returns into the business, so to speak.

Another point to remember, if the public will demand only approved hospitals, there will be no falling off in Health Preservation dividends.

EDITORIAL NOTES

DEAR DOCTOR:

THE JOURNAL and the Cooperative Medical Advertising Bureau of Chicago maintain a Service Department to answer inquiries from you about pharmaceuticals, surgical instruments and other manufactured products, such as soaps, clothing, automobiles, etc., which you may need in your home, office, sanitarium or hospital.

We invite and urge you to use this Service.

It is absolutely *free* to you.

The Cooperative Bureau is equipped with catalogues and price lists of manufacturers, and can supply you information by return mail.

Perhaps you want a certain kind of instrument which is not advertised in THE JOURNAL, and do not know where to secure it; or do not know where to obtain some automobile supplies you need. This Service Bureau will give you the information.

Whenever possible, the goods will be advertised in our pages, but if they are not, we urge you to ask THE JOURNAL about them, or write direct to the Cooperative Medical Advertising Bureau, 535 N. Dearborn St., Chicago, Illinois.

We want THE JOURNAL to serve *you*.

We welcome the latest addition to the list of State Medical Journals—Alabama. The Medical Association of the State of Alabama and the State Board of Health are the joint owners, editors and publishers of the new journal, with

offices at Montgomery. The current issue contains 48 pages of text, and 16 pages of advertisements. The general style and arrangement conforms to that of the other state journals. The original papers, editorials, etc., are of a high grade. The advertisements are subject to the approval of the Council on Pharmacy and Chemistry of the A. M. A. The new journal is a worthy addition to the list, and we wish it and its sponsors every success.

Alabama makes the 33rd state journal, of which 26 represent separate states, while 7 are regional journals and cover 18 states. Thus, the 33 journals cover 44 states, leaving the following ones without an official organ: Connecticut, District of Columbia, Maryland, Montana, and North Carolina.

The official title of the new periodical is: The Journal of the Medical Association of the State of Alabama and of the State Board of Health. If the sponsors will accept a suggestion from a sincere well-wisher, why not rechristen the new baby before it gets too old and simply call it "The Alabama Medical Journal"? And, in the same vein, why not abbreviate this one, too: The University of Maryland School of Medicine and College of Physicians and Surgeons?

Time: Annual Meeting of the Medical Society of Delaware, 1931.

Place: Lobby of the Du Pont-Biltmore Hotel.

Young wife of physician, to pleasant-faced man approaching her booth: Doctor, do you take *Hygeia,* the health magazine? It ought to be on your waiting-room table. The subscription price is only $3.00 a year and——

P-F Man: No, I don't think I need to take it.

Y. W. of P.: But, doctor, your patients will find it most interesting and instructive.

P-F Man: Yes, yes, I know, but I hardly think I need to subscribe to it.

Y. W. of P.: Now, doctor, times are hard, I know, but $3.00 is not a large sum.

P-F Man: Well, you see, my name is Fishbein, and I'm the editor of *Hygeia.*

Several members of the Medical Society of Delaware accepted the invitation of the Medical and Chirurgical Faculty of Maryland to be their guests at their semi-annual meeting, which was held on October 21, 1931, at historic old West Nottingham Academy, in Cecil County. A delightful time was had, and much of America's early medical history was rehearsed. Dr. John Archer, of Bel Air, who was the first medical graduate from the University of Pennsylvania, and hence the first one in America, received his early education at this famous old school, as did also Drs. James Ashton Baird, John Morgan, Benjamin Rush, William Shippen, Jr., and William Tennant.

It is planned to make this affair an annual one.

The Lord's Prayer does say: "And forgive us our debts," but first it says, "Give us this day our daily bread." Somewhere in between these extremes the average physician finds himself. But it remained for the Missouri doctor to show us how to forgive our debts and at the same time get our daily bread, or at least a crust of it. Here's how:

DOCTOR PUBLISHES
LIST OF DEBTORS

Cancels Some Bills and Deducts $10,000 From $36,000 Total

By The Associated Press

MARCELINE, Mo., Oct. 28.—Dr. Ola Putman, Marceline surgeon, finds a puzzle in the attitude of clients toward his program for abatement of doctor bills.

A week ago Dr. Putman proposed to end a prolonged moratorium on debts of about $36,000 by cancelling some bills and deducting $10,000 from the total owed by those who were pressed, but could pay.

Dr. Putman started by forgiving seventy-five of his debtors publicly in the columns of the weekly Marceline News. He forgave each by name, mentioned the amount of the debt and announced that three more groups were to benefit, one each week.

"Out of all those seventy-five persons," the surgeon commented, "only one has thanked me. I see no reason why all of them shouldn't thank me, do you?"

Oh, yes, a few of the overdue accounts have been paid since the list was published, just a few.

Wilmington Every Evening

King Solomon and King David led merry, merry lives
With many, many lady friends and many, many wives.
But when old age came on them with its many, many qualms,
King Solomon wrote the Proverbs,
And King David wrote the Psalms.

Kalends.

DELAWARE PHARMACEUTICAL SOCIETY

DOCTORS' AND DRUGGISTS' TREATMENT

Doctor J. M. Doran, commissioner of industrial alcohol, recently issued Circular Letter No. 85 to supervisors of permits and others concerned, in which he said that "certain conditions are still far from satisfactory in the administration of the permissive features of the law," alluding "to the administration of the law and regulation which particularly affects the doctor and the retail druggist." The commissioner directed attention to his Circular Letter No. 32, of December 11, 1930, and stated that "while conditions have no doubt continued to improve where the retail druggist is concerned there is still room for considerable improvement in the administration and methods of handling the permits of the physician." The commissioner then adverted to the legal right of a doctor and druggist to obtain a new permit after the lapse of one year from the date of revocation of a permit. This is not an unqualified legal right, section 6 of title 2 of the National Prohibition act providing that "no permit shall be issued to any person who within one year prior to the application therefor or issuance thereof shall have violated the terms of any permit issued under this title or any law of the United States or of any state regulating traffic in liquor." It lies with the commissioner to determine whether in the light of the circumstances in the particular case a new permit may be issued after the expiration of one year. Section 9 of the act provides that "if it be found that such person has been guilty of wilfully violating any such laws, as charged, or has not in good faith conformed to the provisions of this act, such permit shall be revoked and no permit shall be granted to such person within one year thereafter." In this latest circular letter Commissioner Doran continues: "From time to time, permits of doctors and druggists are revoked for violations of the law and regulations and after the lapse of one year new applications for permits are frequently made. The fact that a permit was revoked over a year ago is of itself no bar whatever to the issuance of a new permit and it should not be made the excuse or the reason for negative action. It is true that a man's past record may be taken into account in judging of his fitness to hold a permit, but it should be borne in mind that doctors and druggists render professional service to the general public and are hardly in the same position as manufacturers and merchants making and dealing in commodities on a competitive basis." The commissioner added: "There is no character of investigation that causes as much irritation in a community as the visitation of patients of physicians and questioning them as to whether they did actually receive a prescription and secured liquor and what the nature of their ailment was. When the examination of the prescription files in the drug stores reveals a condition such as consecutive numbers from a physician or patients living at great distance from the drug store the visitation of alleged patients may be made only after the facts are made known to some responsible officer, such as the supervisor, or the assistant supervisor, and their permission obtained. Let me again call your attention to the fact that the law leaves to the physician the exclusive right and duty of determining whether whisky shall be administered to the patient. Cases of collusion between doctors and druggists can be handled without wholesale visitation of patients, as has been clearly shown by the recent successful conduct of such cases in New York city. The withdrawal and use of distilled spirits for medicinal purposes pursuant to physicians' prescriptions, as well as the procurement and use of distilled spirits for office and emergency administration by doctors and dentists, was approximately 1,195,000 gallons for the fiscal year ending June 30, 1931. The figures for the preceding years were 1,472,113.04 gallons for the year ending June 30, 1929, and 1,383,229.15 gallons for the year ending June 30, 1930. While it is true that the tendency is for a greater number of physicians to take out permits to prescribe, it is readily seen that the total amount of whisky prescribed is actually diminishing from year to year and the medicinal liquor does not present a grave problem in law enforcement."

N. A. R. D. Journal, Oct. 8, 1931

MISCELLANEOUS

The Closed Season For Garages

Since December, 1930, 42 clippings from newspapers in New York State have been received at the State Department of Health which have recorded deaths from breathing automobile exhaust gases in closed garages. Additional clippings have told how 43 people narrowly escaped asphyxiation from the same cause. Doubtless these figures represent but a small proportion of the citizens of this State who lost their lives or have been made ill during the same period through inhaling the deadly carbon monoxide gas in the fumes that pour from the exhaust pipe of every running automobile engine.

Year after year at this season the State Department of Health has emphasized by radio and newspaper the insidious deadly nature of exhaust fumes. The department has repeatedly urged everyone to remember to have garage doors wide open before starting the motor. It is reasonable to suppose that almost every person who drives an automobile either possesses a radio or reads the daily newspaper so the fatalities we have mentioned must be ascribed to forgetfulness or a decision to take a chance rather than face cold drafts. Hence this repeated warning.

Perhaps it may help to impress people with the dangerous nature of exhaust gases if facts given in a few of the newspaper stories are recited.

In order to charge a depleted battery, an automobile was left running in a closed private garage which was underneath a bedroom. Result—two children and their mother were made seriously ill before the danger was discovered. Prompt action in getting them into the open air saved their lives.

In another case, a man went into his garage to fix a vacuum type windshield wiper which had not been operating properly. While adjusting it the owner evidently started the motor without opening the garage doors. He must have dropped unconscious without any warning of disaster for his pliers were still in or near his hand when the body was found. An inhalator was used without success.

A nightly habit of running the motor of his car a short time to keep it from freezing was responsible for the death of a man last winter in a closed garage. He evidently could not get to the outside air before being overcome.

Sometimes the wind is responsible for closing garage doors not properly fastened open. Several cases have been noted where this may have happened while the car operator was still in or near his car.

Apparently it isn't even necessary for all garage doors and windows to be closed for a fatality to occur. In a certain fatal case, one of the two garage doors was open. The supposition is that the wind blew the exhaust gases back into the garage. In another instance, where the garage doors were slightly ajar, the car operator realized he was being overcome and rushed into the open air before he dropped unconscious. In this case recovery was long delayed.

If a person is beneath the car with his head near the exhaust pipe and the motor is running, he may be overcome, even if the doors are wide open.

Some years ago in order to determine how quickly and insidiously carbon monoxide can affect an individual, the writer of this talk carried out the following experiment: he went into a three car garage where his automobile was then housed, closed all doors and outlets and started the motor, after first having arranged for his son to stand at the window and watch for the first sign of distress. Within a few minutes a drowsiness was apparent and the experimenter would have fallen unconscious had not the garage doors been instantly flung open.

There is but one safe way of working behind closed doors with a gas engine running—namely by attaching a pressure hose pipe tightly to the end of the exhaust pipe and running the hose into the open air through a suitable aperture. Rosenwald Fund. whose book, "Paying Your *instantly and without warning.* By the time a person realizes that something is wrong he is so far overcome that he usually loses consciousness before he can reach the open air.

N. Y. State Dept. of Health

Sickness Insurance

Sickness costs must be distributed over the group; the individual poor or middle class employed person, or head of a family, cannot budget for sickness because it is not predictable whether he will be afflicted at all, or have a $15 sickness, or a $75 sickness, or a $475 sickness, but if distributed over the group in the form of sickness insurance, $8 to $15 per person a year would pay for all the expenses of hospital care and professional fees for acute illness.

This is the opinion of Michael M. Davis, Ph. D., director of medical service of the Julius Rosenwald Fund, whose book, "Paying Your Sickness Bills," is published by the University of Chicago Press. Group insurance is the most practicable and equitable method to insure competent professional care of the sick, and at the same time eliminate the $365,000,000 a year medical charity now given by doctors, hospitals and clinics, Dr. Davis believes. He points out that this excessive charity practice, in the form of outright free service to approximately 7 to 10 per cent of the population, and reduced fees to another twenty per cent, results in 35 cents of the paying patient's dollar going to the doctor's "overhead." This heavy overhead is due to the doctor's expensive education (estimated at $10,000), the costly equipment he must have, and the fact that he must earn his entire livelihood in about one-third of his working time, devoting the balance to charity and to "professional advancement."

The typical commercial sickness insurance policy, costing about $60 a year, does not meet the needs, in Dr. Davis' opinion, because it covers an individual only, and not his family, and because it limits its liability to a sum that will not cover the "high cost illnesses"—and because the wage-earner hasn't $60 a year to spend on sickness.

Dr. Davis discusses various forms of industrial insurance now used in this country, and plans used in Germany, France, and other foreign countries. He also considers the extension of taxation as a means of distributing the cost of sickness, and discusses its present application to smallpox and mental diseases.

Dr. Davis is a member of the Committee on the Costs of Medical Care.

Increasing Clientele

We are confronted from time to time with propositions conceived by some individual with an eye to business purporting to increase our field of professional usefulness. Most of us have the laudable desire to increase our clientele but we occasionally have a way of jumping at some tempting bait without careful investigation.

A newspaper man conceives the idea that the local medical profession should receive more publicity and works up the idea of a Sunday supplement array of photographs with an accompanying write-up of the leading members of the local profession—for a consideration.

Or someone gets out a bulletin and to help defray expenses seeks permission over the telephone to include your name—at a nominal charge.

Or a persuasive individual shows you a copy of a directory of experts in the legal and medical profession which has been published for forty or fifty years. You glance it over and sure enough it contains a very select list of the outstanding men in your locality and elsewhere. You are secretly flattered. The cost is moderate. Perhaps something of this sort is just what you should take on. Your true worth is finally coming to be recognized. You sign on the dotted line, later to find that the publication has little organization and no one has ever heard of it.

Or some layman is getting up something new and different—a directory of reliable physicians all over the country. Only those free from commercial taint and recognized by the profession itself are to be included. Data given will be so complete that selection of a physician for reference of patients will be easy. How much demand for such a publication there will be, however, is a matter of speculation.

Whether a medical directory of the professional standing of physicians edited by a layman can possibly be as reliable as one published by a medical organization, is questionable. The American Medical Association has for years published a directory of all licensed physicians which contains useful and reliable information, although admittedly not as complete as might be desired.

A limited directory appears in a number of the state medical journals. Paid insertions resembling professional cards with name, specialty and address appear monthly in the advertising section. This practice falls into the category of local custom and cannot be criticized. We can see some convenience in the method, but most physicians are well acquainted with the profession of the state and state journals have as a rule a limited circulation outside of the state. We imagine few physicians would refer patients on the basis of state journal insertions. Incidentally the practice furnishes an added source of income to the state journal and might be considered by our Association.

These numerous efforts to furnish reliable information as to professional qualifications have more or less worthy motives. Most of them, however, are attempts at forcing the growth of medical practice.

To quote from the "Principles of Medical Practice" of our national association: "The most worthy and effective advertisement possible even for a young physician, and especially with his brother physicians, is the establishment of a well-merited reputation for professional ability and fidelity. This cannot be forced but must be the outcome of character and conduct."

The newspaper publicity mentioned is, after all, direct advertisement. Directory insertions, while not strictly unethical, are probably of little value as a means of increasing one's practice.

Editorial, *Minn. Med., Oct., 1931*

Mayo Clinic Advertising

For many years we have been hearing reports concerning Mayo Clinic advertising in the lay press, and at various times we have heard prominent physicians and surgeons accuse that enterprise of having a paid press agent who skillfully and adroitly exploits the clinic through lay publications. Occasionally when we have seen some more or less eulogistic article in the lay press concerning The Mayo Clinic we have been half tempted to believe some of the charges that have been made, but upon investigation, and we confess that we have made some investigation, we have learned that instead of seeking publicity The Mayo Clinic has gone to a good deal of trouble and even considerable expense to suppress the efforts of feature writers and others from giving The Clinic publicity that even in its milder form is exceedingly distasteful and objectionable to every member of the organization in question.

The truth of the matter is that The Mayo Clinic has grown to magnificent proportions, and in the favorable estimation of public and profession as well, as a direct result of the high character of work done. It is impossible for any physician or group of physicians to escape a certain amount of publicity, some of which is embarrassing and all of it undesirable, when the character and amount of work done is such as to leave a favorable impress upon profession and public alike. Thus it is that grateful patients in all walks of life have been contributing factors in their several communities in eulogizing and, commercially speaking, advertising The Mayo Clinic in one way or another, and have given publicity through the lay press that The Clinic sponsors know absolutely nothing about and would have done everything possible to prevent had they known about it in advance. Then there have been the feature writers for large newspapers or periodicals, frankly out for gain and receiving their compensation from the publications represented, that have, without either the consent or knowledge of any member of The Mayo Clinic staff, taken occasion to write eulogistic articles concerning the Clinic that, figuratively speaking, have made The Mayo Clinic sponsors boil over with indignation and humiliation. In some instances a knowledge of the intention of some lay periodical to publish an eulogistic article concerning The Clinic has led the sponsors of The Clinic to reimburse the publishers for their expense on the promise that the article never would appear in print. Unfortunately this practice, when information concerning it has reached the unscrupulous, has led to a species of blackmail by those who derive a profit by writing feature articles and who have accepted compensation for suppression of the article.

We hold no brief for The Mayo Clinic, but we do believe in "giving the devil his dues" and in upholding all of those medical men who are following faithfully the ethics and traditions of the medical profession, and after considerable inquiry and investigation we have come to the conclusion that no individual man or body of men in the medical profession has come nearer to upholding all of the cherished principles of our profession than The Mayo Clinic and its staff.

On the other hand we have only criticism and condemnation for the medical man who, as a former member of The Mayo Clinic staff, or who has been a student under the Mayo Foundation, or, as more often happens, has been a mere visitor in the Clinic, and then goes home and advertises in the daily newspapers that he has been a member of the staff, or has taken postgraduate courses at The Mayo Clinic. Some of the worst offenders are the physicians who go as visitors to the Clinic, spend a few days looking on, and then return home and advertise that they have received special instruction at The Mayo Clinic, and sometimes go so far as to say in their advertising that because of such instruction they are unusually qualified to serve the public. We have had a number of examples of this sort of personal exploitation at the expense of The Mayo Clinic by Indiana physicians, and quite recently we have received a professional card from an Indiana physician calling attention to service on the staff of The Mayo Clinic, presumably on the theory that he should have preferment because of that service. Not long ago a feature writer for one of our Indiana newspapers took occasion to look up and advertise a few of the Indiana physicians who have received more or less instruction at The Mayo Clinic, or perhaps who were merely visitors in The Mayo Clinic. Some of those Indiana physicians seemingly were quite willing to exploit themselves in the feature article mentioned, and to advertise their offices and equipment, with suggestive illustrations, and offer glowing tributes concerning their skill. The article gave The Mayo Clinic great and justifiable praise, but not a single member of The Mayo Clinic staff knew a thing about the article until after it appeared in print, and very naturally the sponsors of the Clinic were incensed, not only at the feature writer who took advantage of an opportunity, but at the Indiana doctors who overstepped the bounds of ethics and propriety in exploiting themselves at the expense of The Mayo Clinic.

We admit that there is a great deal of objectionable commercialism practiced by certain members of the medical profession, and there are a few, some of whom are relatively prominent in their various communities, who seek every opportunity to keep in the limelight and oftentimes resort to publicity practices that are exceedingly distasteful and obnoxious to their confreres, and not infrequently objectionable to the better class of laymen. We believe that it is time to discipline physicians of that type, no matter what their positions in their several communities may be. We would remind all county medical societies that they owe a duty to themselves and to the profession at large to discipline those of their members who so flagrantly overstep the bounds of ethics and propriety, and in this question of advertising for the purpose of soliciting patrons, we believe that it is time to call a halt. We therefore desire to close this comment by quoting the Principle of Medical Ethics which, concerning the question of advertising, says, "Solicitation of patients by physicians as individuals, or collectively in groups by whatsoever names these be called, or by institutions or organizations, whether by circulars or advertisements, or by personal communications, is unprofessional. This does not prohibit ethical institutions from the legitimate advertisement of location, physical surroundings and special class—if any—of patients accommodated. It is equally unprofessional to procure patients by indirection through solicitors or agents of any kind, or by indirect advertisement, or by furnishing or inspiring newspaper or magazine comments concerning cases in which the physician has been or is concerned. All other like self-laudations defy the traditions and lower the tone of any profession and so are intolerable. The most worthy and effective advertisement possible, even for a young physician, and especially with his brother physicians, is the establishment of a well-merited reputation for professional ability and fidelity. This cannot be forced but must be the outcome of character and conduct. The publication of or circulation of ordinary simple business cards, being a matter of personal taste or local custom, and sometimes of convenience, is not *per se* improper. As implied, it is unprofessional to disregard local customs and offend recognized ideals in publishing or circulating such cards. It is unprofessional to promise radical cures; to boast of cures and secret methods of treatment or remedies; to exhibit certificates of skill or of success in the treatment of diseases; *or to employ any methods to gain the attention of the public for the purpose of obtaining patients.*"

Editorial, *Jour. Ind. S. M. A., Oct., 1931*

Telephone List
OF THE
San Francisco County
Medical Society

Following the publishing of a separate list of the members of the San Francisco County Medical Society in the telephone book with the above caption stating the fact that they were members of the above society, brought about quite a discussion pro and con in the newspapers, as to its advertising.

It is not unusual, when a group of men drop out of any organization they become more or less antagonistic towards those who remain an organized unit, because they immediately realize that any body of organized individuals has power, where the disorganized, or disrupted have little and can only be heard by trying to tear down the organization, while the newspapers are always ready to take up any discussion in which a great number of people are interested.

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Medicine should be no exception to the rules in general business as to the rules of organization. The County Medical Society of San Francisco passes on the merits of their members. They only accept those who graduate from recognized medical colleges and pass the Board of Medical Examiners of the state, and must possess a good moral character before they enter this organization. Naturally they must pay for the privilege of being a member which costs the paltry sum of $5.00 per month. This enables each to become a member of the State and American Medical Association. It entitles them to the privilege of the library of the Society, which is well indexed and also gives them the privilege of pursuing studies on any subject connected with the profession the physician cares to investigate.

Members are housed in a Club, overlooking Golden Gate—one of the picturesque locations of San Francisco, which could not be duplicated for a quarter of a million dollars. In addition to all these privileges, the member is put shoulder to shoulder with the best men of the profession, men who are interested in doing everything for humanity that is known to medical science. There is not a union in this city, from laborers to hodcarriers, of any status, that is not charged a fee equal to that of the County Medical Society. The men who stand on the outside always have a reason. It may be excessive monthly dues, or it may be some clique that they don't like. It may be that they have not acquired the habit of mixing with the doctors of organized medicine. It is barely possible that they are arriving at that age they like to remain around the fireside during the evening; but when they notice the list in the telephone book; when they realize that they are being ostracized from organized medicine; when they begin to recognize that every organization that employs a doctor, whether it be a society, an insurance company, a state or national appointment, the blank must be filled out showing whether you belong to your county medical society. Did you ever think why that question is asked before you are employed? It is for the same reason that the stranger in your midst, when he picks up the telephone book, wants a guide to a body of men that have been selected, that he can trust, and when he finds the members listed under the County Medical Society, the question is answered.

Editorial, *Comp. of Med. and Surg.*

Streptococcal Agglutinins in Rheumatoid Arthritis

EDITH E. NICHOLLS and WENDELL J. STAINSBY, New York (*Journal A. M. A.*, Oct. 17, 1931), describe experiments in which they noted that the serum of patients with rheumatoid arthritis give a strong specific agglutination reaction with "typical strain" streptococci recoverable from the blood and joints of patients with rheumatoid arthritis. Such a reaction suggests that this type of hemolytic streptococcus is of etiologic importance in the disease. A close antigenic relationship between "typical strain" streptococci and the hemolytic streptococci from scarlet fever and erysipelas is established. Rheumatoid arthritis can be differentiated from osteo-arthritis, chronic gout, gonococcal arthritis and other joint diseases by the agglutination reaction. The agglutination reaction, when supplemented by the sedimentation test, not only offers a valuable aid in differential diagnosis of arthritic conditions, but also affords an estimate of the activity of the disease and the progress of the patient.

Bronchoscopy as Aid in Diagnosis of Obscure Pulmonary Disorders

According to EDWARD A. LOOPER, Baltimore (*Journal A. M. A.*, Oct. 31, 1931), the practical use of bronchoscopy as an aid to the diagnosis and treatment of diseases of the chest is increasing in favor. In many cases a final diagnosis can be made only through the help of endoscopy after all other means of investigation have failed. A well-equipped central clinic unquestionably affords the best opportunity for the study of such cases, but for various reasons many deserving patients never reach such a clinic. It is apparent, therefore, that there is a fertile field for investigation for the bronchoscopist in hospitals for the treatment of pulmonary diseases. The author earnestly hopes that the time will soon come when the management of all hospitals for the treatment of tuberculosis will insist on the establishment of a bronchoscopic clinic as an important department in such institutions.

Dentists Now to Advertise Ethically

GROUP PUBLICITY TO FEATURE DENTAL EDUCATION

The American Dental Association in its National Convention, held at Memphis, Tenn., October 19th to 24th, has decided to advertise. This breaks the years-old convention and the official ethics against publicity. However, the advertising will not be in any sense commercial or individualized. Instead, it will be publicity on the highest plane possible, and will be devoted exclusively to dental education.

In a letter to the American Dental Association, sent to its new president, Dr. Martin Dewey, of New York City, President Hoover voiced his sentiments as approving such an advanced and modern step and favoring educational publicity, particularly as it will especially benefit the children.

This publicity will be handled by the American Dental Association through a new bureau that has been organized and which will keep the public informed on the care of their teeth, mouth hygiene, proper diet, and the prevention of dental troubles. The theme of the publicity will be along the lines of prevention, and, if heeded by the public, will save the people of America millions of dollars in dental bills. Newspapers, magazines, radio, and other forms of advertising media will be used in this publicity program, but in no sense will any individual dentists' names be mentioned, nor fees quoted.

Such group publicity in the form of dental education was started in Little Rock, Arkansas, in August, 1930, and brought such favorable response and comments from leading dentists, educators, and the press that it was decided after such a test to allow the dentists of the country to resort to similar publicity in a likewise ethical manner.

The dentists of the country have taken a forward step, the returns of which publicity will be incalculable, and thus will live up to their ethics of doing everything they can to aid humanity along the lines of dentistry.

"Prevention" as a theme is an unselfish one, and the various messages that will be presented will make the public more dental-minded, and cause them to stop neglecting their teeth, and, consequently, their health.

BOOK REVIEWS

Physicians' Manual of Birth Control. By Antoinette F. Konikow, M. D. Pp. 245, with 21 illustrations. Cloth. New York: Buchholz Publishing Company, 1931.

This volume, intended for physicians only, seems to be the most analytical and critical essay on the subject that we have yet seen. Its aim is to teach the profession at large the technique of contraception, and this it does plainly and tersely. The book is in four parts—general discussion; detailed discussion of methods; practical applications; statistics. The index is complete. The book can be well recommended to those interested in this increasingly important subject.

Infections of the Kidney. By Meredith F. Campbell, M. D., Attending Urologist, Babies' Hospital, New York City. Pp. 343, with 40 illustrations. Cloth. Price, $3.00. New York: Harper & Brothers, 1931.

This is the eighth of the twelve small volumes that are to comprise the Harper's Medical Monographs. The author aimed at a concise and practical book for the general practitioner, and he has succeeded admirably. Theoretical discussions are absent. The book is up to date, and includes the recent advances in intravenous pyelography and chemotherapy. The illustrations are good, and the index is ample. This monograph is the best small-volume one on this subject; it is well worth reading.